



Osmerus mordax

Rainbow smelt, Frostfish, American smelt, Ice fish, Smelt

Threat Scores

1. Ecological Impact
 - Damaged the large sport fish populations in two ways.
 - First, the adult smelt actually prey on the young sport fish; this added source of predation has decreased the abundance of sport fish in many ecosystems
 - The other negative effect of Smelt is that that as young of year fish the smelt directly compete with the young sport fish for the limited supply of zooplankton
 - Rainbow Smelt populations that are found in inland lakes can have negative effects on the lake community
 - The smelt concentrates PCBs in its fatty tissue, and magnifies it through the food chain
 - High mercury levels also accumulate in the top food chain predators
2. Invasive Potential
 - Have expanded range via connected waterways
3. Geographic Extent
 - Locally pervasive
4. Management Difficulty
 - Commercial fishing can aid in keeping populations under control in introduced waters



Geography and Habitat

1. Native: North American Atlantic Coast from New Jersey to Labrador, landlocked populations
2. Introduced: Virginia, Washington, Oregon
3. Habitats
 - Water courses, lakes, reservoirs, marine
 - An anadromous fish, with landlocked populations that have adapted to freshwater environments

Invasion Pathways

1. Natural spread
2. Stocking in open water - intentionally stocked as baitfish

Non-Native Locations

1. 41- Virginian
2. 56- Puget Trough/Georgia Basin
3. 57- OR, WA, Vancouver Coast and Shelf

Sources

1. Molnar, Jennifer et al. 2008. Assessing the global threat of invasive species to marine biodiversity. *Frontiers in ecology and the environment*. Vol. 6, No. 9, pp. 485-492.
2. <http://conserveonline.org/workspaces/global.invasive.assessment>
3. <http://www.fishbase.org/Summary/speciesSummary.php?id=253>
4. <http://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=796>